

WHAT IS CLAIMED IS:

1. An occlusion catheter for the ascending aorta comprising:

5 a catheter tube having at least a first lumen and a second lumen independent of each other; and

a balloon provided on the outer circumference of the distal end of said catheter tube for being inflated/deflated in accordance with supply or drainage of a fluid through said first lumen in order to obstruct the blood flow within the ascending aorta when inflated,

10 said catheter tube being provided with a drug release aperture for releasing a drug supplied through said second lumen in the position closer to the proximal end than the site where the blood flow is obstructed by said balloon on the outer circumference of the distal end of said catheter tube.

2. The occlusion catheter for the ascending aorta according to claim 1, wherein at least two drug release apertures are formed more proximally than said balloon in different directions, respectively.

3. The occlusion catheter for the ascending aorta according to claim 2, wherein said at least two drug

release apertures are formed in different positions, respectively, relative to the axial direction of said tube.

5 4. The occlusion catheter for the ascending aorta according to claim 1, wherein said balloon is made of polyurethane.

10 5. The occlusion catheter for the ascending aorta according to claim 1, wherein said catheter tube includes a portion from the distal end to a point a predetermined distance away therefrom being reinforced with a reinforcement member.

15 6. An occlusion catheter for the ascending aorta comprising:

 a catheter tube having at least a first lumen and a second lumen independent of each other; and

20 a balloon provided on the outer circumference of the distal end of said catheter tube for being inflated/deflated in accordance with supply or drainage of the fluid through said first lumen in order to obstruct the blood flow within the ascending aorta when inflated, said balloon having a configuration with a concavity on the outer surface at least when inflated and being joined
25 to said catheter tube in said concavity,

said catheter tube being provided with a side aperture in the side wall of said catheter tube in the different position from said concavity of said balloon, for communicating the outside of said catheter tube and said second lumen to enable release of a drug from said side aperture by supplying the drug through said second lumen.

7. The occlusion catheter for the ascending aorta according to claim 6, wherein said concavity is formed at each end of said balloon.

8. The occlusion catheter for the ascending aorta according to claim 6, wherein said catheter tube includes a portion from the distal end to a point a predetermined distance away therefrom being reinforced with a reinforcement member.

9. An occlusion catheter for the ascending aorta comprising:

a catheter tube having at least a first lumen and a second lumen independent of each other; and

a balloon provided on the outer circumference of the distal end of said catheter tube for being inflated/deflated in accordance with supply or drainage

of the fluid through said first lumen in order to obstruct the blood flow within the ascending aorta when inflated, said balloon having a configuration with a depression in a part of the center of said balloon at least when inflated and being joined to said catheter tube in said depression,

5 said catheter tube being provided with a side aperture on the side thereof in said depression of said balloon, for communicating the outside of said catheter tube and said second lumen to enable release of a drug from said side aperture by supplying the drug through
10 said second lumen.

10. The occlusion catheter for the ascending aorta according to claim 9, wherein said catheter tube includes
15 a portion from the distal end to a predetermined distance away therefrom being reinforced with a reinforcement member.

11. An occlusion catheter for the ascending aorta
20 comprising:

 a catheter tube having two or more lumens, including at least a first lumen and a second lumen formed therewithin;

 a balloon provided on the outer circumference of the
25 distal end of said catheter tube for being

inflated/deflated in accordance with supply or drainage of the fluid through said first lumen in order to obstruct the blood flow within the ascending aorta when inflated,

5 said catheter tube being provided with a side aperture in the position closer to the proximal end than said balloon for communicating the outside of said catheter tube and said second lumen to enable release of a drug from said side aperture by supplying the drug through said second lumen; and

10 a valve provided within said second lumen having a structure capable of passing a guide wire therethrough and shutting the fluid flow at least when the guide wire is not passed.

15 12. The occlusion catheter for the ascending aorta according to claim 11, wherein said valve is made of an elastic body having an insertion hole, said insertion hole being shut tight at least when the guide wire is not passed therethrough and expanded due to the elastic
20 deformation of said elastic body when the guide wire is inserted into said insertion hole.

25 13. The occlusion catheter for the ascending aorta according to claim 12, wherein said side aperture allow the guide wire to be inserted therethrough.

14. A method of using an occlusion catheter for the ascending aorta, comprising the steps of:

5 making an incision or a hole in the chest to provide access to the ascending aorta from the outside and creating an opening at an insertion site of the ascending aorta, then expanding said opening with a dilator;

10 inserting the occlusion catheter for the ascending aorta into the ascending aorta through said opening and fixing the occlusion catheter to the ascending aorta;

placing a balloon in a proper indwelling position and inflating the balloon to occlude the ascending aorta; and

15 releasing a cardiac muscle protective drug from a drug release aperture to deliver the cardiac muscle protective drug to the vicinity of the coronary ostium.